

Notice of Allowability

Application No.

10/786,566

Applicant(s)

KANO ET AL.

Examiner

Art Unit

Joon H. Hwang

2166

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to a telephone interview with Chun-Pok Leung (Reg. No. 41,405) on 1/6/06.
2. ☒ The allowed claim(s) is/are 20-22 and 26-28 (renumbered as 1-6).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other Exhibit A.


JEAN M. CORRIELLUS
PRIMARY EXAMINER

DETAILED ACTION

1. The applicants amended claims 20, 22, and 26, canceled claims 23-25, and added new claims 27-29 in the amendment received on 12/19/05.

The pending claims are 20-22 and 26-29.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
3. Authorization for this examiner's amendment was given in a telephone interview with Chun-Pok Leung (Reg. No. 41,405) on 1/6/06.
4. The application has been amended as follows:

Rewrite claim 20 as follows:

"20. A storage system having a first storage subsystem and a second storage subsystem coupled to a host computer via a network, wherein,

the first storage subsystem includes:

first and second storage volumes storing data accessed from the host computer according to a block access command;

first retention information associated with the first storage volumes;

and

second retention information associated with the second storage volume; and

the second storage subsystem includes:

storage volumes storing data; and

a setting information storage area,

wherein data in the first storage volume are copied to a third storage volume of the storage volumes in the second storage subsystem and a third retention information corresponding to the first retention information is stored in the setting information storage area of the second storage subsystem according to a request for copying the data in the first storage volume so that write access to the third storage volume is prohibited based on the third retention information after the data stored in the first storage volume are copied to the third storage volume;

wherein data in the second storage volume are copied to a fourth storage volume of the storage volumes in the second storage subsystem and a fourth retention information corresponding to the second retention information is stored in the setting information storage area of the second storage subsystem according to a request for copying the data in the second storage volume so that write access to the fourth storage volume is prohibited based on the fourth retention information after the data stored in the second storage volume are copied to the fourth storage volume; and

wherein the third retention information take over remaining days in the first retention information, the remaining days indicating the number of days for which write access to a storage volume is prohibited.”;

Rewrite claim 22 as follows:

“22. The storage system of claim 20, wherein the first retention information is copied and stored as the third retention information.”; and

Cancel claim 29.

The pending claims are now 20-22 and 26-28.

5. The following changes to the drawings have been approved by the examiner and agreed upon by applicant:

- Label a “Is “yes_no_copy_for_attribute” a yes?” box with a reference number 1118 in fig. 11A. (This correction is shown in Exhibit A).

In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

Allowable Subject Matter

6. Claims 20-22 and 26-28 are allowed.


Reason For Indicating Allowable Subject Matter

7. Claim 20 identifies the distinct features, a third retention information corresponding to a first retention information is stored in a setting information storage area of a second storage subsystem according to a request for copying the data in the first storage volume so that write access to the third storage volume is prohibited based on the third retention information after the data stored in the first storage volume are copied to the third storage volume, a fourth retention information corresponding to a second retention information is stored in a setting information storage area of a second storage subsystem according to a request for copying the data in the second storage volume so that write access to the fourth storage volume is prohibited based on the fourth retention information after the data stored in the second storage volume are copied to the fourth storage volume, and the third retention information take over remaining days in the first retention information, the remaining days indicating the number of days for which write access to a storage volume is prohibited, are not taught or suggested by the prior art made of records. The closest prior art, McGovern et al. (U.S. Publication No. 2005/0097260) disclosing a WORM (write-once-read-many) storage volume with a retention period, fails to suggest to claimed limitations as mentioned above in combination with other claimed elements. The above features in conjunction with all other limitations of the dependent and independent claims 20-22 and 26-28 are hereby allowed.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joon H. Hwang whose telephone number is 571-272-4036. The examiner can normally be reached on 9:30-6:00(M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joon Hwang 
Patent Examiner
Technology Center 2100

1/6/06

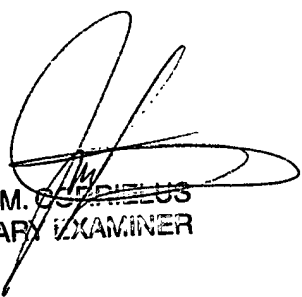

JEAN M. G. G. G. G.
PRIMARY EXAMINER

Exhibit A

FIG. 11A

